33. The peptide of claim 32 which comprises the amino-acid sequence provided in SEQ ID NO:1.

34. The peptide of claim 32 which comprises the amino-acid sequence provided in SEQ ID NO:2.

35. The peptide of claim 32 which comprises the amino-acid sequence provided in SEQ ID NO:3.

36. The peptide of claim 32 which comprises the amino-acid sequence provided in SEQ ID NO:4.

37. A chimeric polypeptide comprising one or more peptides of claim 32 covalently linked to a carrier polypeptide which comprises at least one T-cell epitope.

38. The chimeric polypeptide of claim 37 which also comprises a purification tag peptide sequence.

39. The chimeric polypeptide of claim 38 wherein the purification tag peptide sequence is a Histidine-tag sequence.

40. The chimeric polypeptide of claim 37 wherein the carrier polypeptide is lipoprotein D.

41. The chimeric polypeptide of claim 37 wherein the amino acid sequences of the polypeptides used are selected from the group consisting of SEQ ID NO:1, 2, and 3.

42. A chimeric polypeptide comprising three LB1(f) subunits and lipoprotein D, wherein the amino acid sequences of the LB1(f) subunits used are provided in SEQ ID NO: 2, 3, and 5.

43. The chimeric polypeptide of claim 42 which also comprises a Histidine purification tag sequence.

44. The chimeric polypeptide of claim 42 wherein the order of the peptide components from the N-terminus of the polypeptide is: lipoprotein D, LB1(f) subunit (SEQ ID NO:2), LB1(f) subunit (SEQ ID NO:5), and LB1(f) subunit (SEQ ID NO:3).

45. The chimeric polypeptide of claim 44 wherein the amino acid sequence of the polypeptide is provided in Figure 5.

46. A vaccine composition comprising an immunogenic amount of at least one peptide or polypeptide from claims 32-45 in a pharmaceutically acceptable excipient, and an optional adjuvant.

47. A method of inducing an immune response in a mammal susceptible to *Haemophilis influenzae* infection comprising the administration to the mammal of an effective amount of the vaccine according to claim 46.

48. A method of preventing *Haemophilis influenzae* infection comprising the administration to a mammal an effective amount of a vaccine according to claim 46.

49. A DNA or RNA molecule encoding one of the LB1(f) peptides or polypeptides provided in claims 32-45.

50. The DNA or RNA molecule of claim 49 wherein the DNA sequence of said LB1(f) polypeptide is provided in Figure 5.

51. The DNA or RNA molecule of claim 47 contained within an expression vector, wherein said expression vector is capable of producing said LB1(f) peptide or polypeptide when present in a compatible cell host.

52. A host cell comprising the expression vector of claim 49.

53. A process for producing a LB1(f) peptide or polypeptide comprising culturing the host cell of claim 50 under conditions sufficient for the production of said polypeptide and recovering the LB1(f) peptide or polypeptide.

54. A process for producing LB1(f) peptide or polypeptide of claim 51 wherein the process comprises the steps of lysing the host cells, and purifying the soluble extract using an immobilised Nickel column step, a cation exchange column step, and a size exclusion column step.

55. A process for producing a host cell which produces a LB1(f) peptide or polypeptide thereof comprising transforming or transfecting a host cell with the expression vector of claim 49 such that the host cell, under appropriate culture conditions, expresses a LB1(f) peptide or polypeptide.

56. A purified antibody which is immunospecific to a peptide provided in claims 32-36.

57. A purified antibody which is immunospecific to a chimeric polypeptide provided in claims 37-45.

58. A method of detecting the presence of *Haemophilus influenzae* in a sample by contacting said sample with the antibody of claim 54 in the presence of an indicator.

59. A method of detecting the presence of *Haemophilus influenzae* in a sample by contacting said sample with a DNA probe or primer constructed to correspond to the wild-type nucleic acid sequence which codes for a LB1(f) peptide of the P5-like fimbrin protein of *Haemophilus influenzae*, characterised in that the probe is selected from the group consisting of gene sequences as provided in Tables 6-8.

60. A reagent kit for diagnosing infection with *Haemophilus inflenzae* in a mammal comprising the DNA probes of claim 57.